

frequently utilized in European community pharmacies, including blood glucose measurements, lipid testing, and SARS-CoV-2 tests, in contrast to tests for strep throat, C-reactive protein, and respiratory syncytial virus. One of the most important roles identified was increased access to healthcare and the convenience that pharmacies provide. However, certain limitations exist regarding the legal and regulatory requirements affecting pharmacists' scope of practice concerning POC testing. For example, in Bulgaria, pharmacists are not permitted by law to provide POC testing services, unlike in other countries such as the UK, France, and Romania.

Conclusion: This study demonstrated that it is possible to provide a community pharmacy-based screening service through POC testing and to encourage pharmacists to take an active role in patient care. Consequently, by reducing the number of laboratory visits, other healthcare providers, such as general practitioners, will be able to allocate more time to different aspects of their responsibilities.

Acknowledgements: This study is financed by the European Union–NextGenerationEU, through the National Recovery and Resilience Plan of the Republic of Bulgaria, project N^o BG-RRP-2.004-0007-C03.

<https://doi.org/10.1016/j.sapharm.2025.02.055>

Usability and test-retest reliability of the medication discrepancy taxonomy (MedTax)

Enas Almanasreh^{1,*}, Rebekah Moles², Timothy F. Chen²

¹ Mutah University, Faculty of Pharmacy, Jordan; ² The University of Sydney

* Corresponding author:

E-mail address: almanasreh.enas@gmail.com (E. Almanasreh).

Background: The medication reconciliation process is intended to minimize the occurrence of medication discrepancies and mitigate their risk at transitions of care. The medication discrepancy taxonomy (MedTax) was developed to assist healthcare professionals in classifying medication discrepancies identified through medication reconciliation.

Objective: to assess the usability and test-retest reliability of the medication discrepancy taxonomy (MedTax).

Method: 20 healthcare professionals (10 nurses and 10 pharmacists) participated in this study. The participants were asked to use the new taxonomy for classifying 38 different medication discrepancies derived from fictitious cases. The pharmacists required to apply the taxonomy to cases at two times, 7 to 10 days apart. The Fisher's exact test was used to compare the agreement between the nurse and pharmacist groups, Kappa coefficient was used to determine the inter-rater reliability, and McNemar's test was used to evaluate the test-retest reliability.

Results: there was no significant difference between the healthcare professionals and the accuracy of classifying the medication discrepancies using the (MedTax). The percentage of overall agreement among nurses and pharmacists was comparable (0.81 and 0.86 respectively). The test-retest reliability of the taxonomy was high (p values > 0.05, McNemar's test).

Conclusion: The medication discrepancy taxonomy (MedTax) provides a content valid and reliable approach for various healthcare professionals to be used in different care settings to classify medication discrepancies at transitions of care. The medication discrepancy taxonomy (MedTax) was designed to improve the medication reconciliation process and to enhance the consistency in measuring the outcomes and improve medication safety at transitions of care.

<https://doi.org/10.1016/j.sapharm.2025.02.053>

Pharmaceutical literacy in Spain and association with health-related quality of life: CROSS-SECTIONAL STUDY PROTOCOL

Maria Sureda Rosich^{1,*}, Carlos Figueiredo-Escribá¹, Silvia López Alaiz², Margarita Aguas Compaired¹, Cecilia F. Lastra¹, Eduardo L. Mariño¹, Pilar Modamio¹

¹ Clinical Pharmacy and Pharmaceutical Care Unit, Department of Pharmacy and Pharmaceutical Technology, and Physical Chemistry, Faculty of Pharmacy and Food Sciences, University of Barcelona, Spain; ² Treasury and Communication, Spanish Society of Clinical, Family and Community Pharmacy SEFAC, Spain

* Corresponding author:

E-mail address: mariasureda@ub.edu (M.S. Rosich).

Background: According to the WHO, unsafe medication practices and medication errors are a leading cause of injury and avoidable harm in health care systems across the world. One of the domains that define this risk is the patient and public awareness and medication literacy.

Some population-based studies have been carried out in Spain related to health literacy, however, we have no evidence regarding medication literacy or its relationship with patients' health related quality of life.

Purpose: This communication outlines a study protocol, which aims to determine the medication literacy level of the Spanish population and relationship between medication relationship with health-related quality of life.

Method/study design: Cross-sectional study conducting interviews between patients and community pharmacists through Spain. The study protocol has been approved by the Bioethical Commission of the University of Barcelona (CBUB) and it follows the SPIRIT 2013 guidelines.

Findings: The study population includes adults that take at least one prescription medication. The estimated representative sample size is 1,246 patients. A convenience sampling technique is used with the collaboration of the Spanish Society of Clinical, Family and Community Pharmacy (SEFAC) to achieve the needed sample in every region. During the interviews, patients' sociodemographic and clinical data will be collected. To assess patients' knowledge and abilities regarding their medication, the interview guide "RALPH-castellano" will be used. This guide consists of 10 questions distributed in the literacy domains (functional, communicative and critical). Subsequently, the self-administered survey "EQ-5D-5L" will be made available to determine the patients' health related quality of life. This survey includes the dimensions of mobility, self-care, usual activities, pain/discomfort and anxiety/depression. The statistical analysis of the results will be performed to correlate the medication literacy to the health-related quality of life.

Conclusion: The current population-based study protocol aims to bring research closer to patients and community pharmacists in a real-world setting, enhancing the value of medication literacy, as a fundamental element for the patients' empowerment on their own health and autonomy.

<https://doi.org/10.1016/j.sapharm.2025.02.054>

Optimizing quality-of-care in older people to prevent iatrogenesis and promote a healthy aging –Portuguese survey results.

Maria Teresa Herdeiro^{1,*}, Veronika Lykholat¹, Jacinta Oliveira Pinho¹, Ana Isabel Plácido², Elsa Melo³, José Mesquita Bastos^{4,5}, Luís Miguel André Monteiro^{6,7}, Fátima Roque²

¹ iBiMED - Institute of Biomedicine, Department of Medical Sciences, University of Aveiro, Aveiro, Portugal; ² Biotechnology Research, Innovation and Design for Health Products (BRIDGES), Epidemiology and Population Health Laboratory, Polytechnic of Guarda; ³ School of Health Sciences, Institute of Biomedicine (iBiMED), University of Aveiro, Aveiro, Portugal; ⁴ Cardiology Department, Unidade Local de Saúde da Região de Aveiro (ULSRA), Aveiro, Portugal; ⁵ Institute of Biomedicine (iBiMED), Department of Medical Sciences, University of Aveiro, Aveiro, Portugal; ⁶ Department of Medical Sciences, Institute of Biomedicine (iBiMED), Universidade de Aveiro, Aveiro; Centre for Health Technology and Services Research (CINTESIS), Faculty of Medicine, Universidade do Porto, Porto; ⁷ Unidade de Saúde Familiar Esgueira Mais, Unidade Local de Saúde da Região de Aveiro (ULSRA), Aveiro, Portugal

* Corresponding author:

E-mail address: teresaherdeiro@ua.pt (M.T. Herdeiro).

Background: In Portugal, the aging population is a dominant demographic trend, owing to declining birth rates and increased life expectancy. In older patients, medical interventions and high medicine usage may be associated with iatrogenesis and/or increased iatrogenic dependence. Therefore, it is important to develop strategies to minimize iatrogenesis associated with healthcare and medication to ensure that seniors retain a healthy life and autonomy.

Purpose: This work aimed to evaluate the knowledge of healthcare professionals on iatrogenesis and its prevention. This will allow the development of collective

and innovative actions to enable optimal care for older adults.

Method: The questionnaire was developed by researchers of STOP-IATRO project, a consortium between Portugal, France and Spain, financed by Interreg-Sudoe. Protocol obtained ethics approval from Clinical Academic Center Egas Moniz Health Alliance Ethics Committee. The anonymous paper and online (<https://forms.ua.pt/>) questionnaires were disseminated by the Unidade Local de Saúde Região de Aveiro within Aveiro region. Participants provided informed consent to participate. All data were stored and analyzed according to General Data Protection Regulation.

Findings: From a total of 64 participants: 42.5% were physicians, 11% hospital pharmacists, 37.5% nurses, and 9% health assistant technicians. Most of them (73%) have >10 years of experience. Many respondents (81%) are not aware of WHO's guidelines for preventing, slowing and reversing the decline of older people's physical and mental capacities; 84% are not aware of published recommendations to prevent loss of autonomy/functional decline during hospitalization of older people; 82% do not use any scale to assess the patient's functional status. Considering patients' decline in functional capacity not attributable solely to health conditions, around 34% participants believe that this corresponds to 11-25% patients, 24% believe to correspond to 26-50% patients, and 14% that it matches to 51-75% of cases. Also, 47% of respondents consider that 11-30% of serious iatrogenic events are due to medicines and 24% believe it is the cause of 41-60% adverse events. Additionally, 41% of the respondents think that 41-60% of these medicine-related iatrogenic events were preventable and 28% consider that 41-60% of these side effects led to hospitalization. Almost all respondents (92%) are willing to take part in pilot actions for good practice in preventing/managing drug iatrogenesis.

Conclusion: Healthcare professionals are aware of iatrogenesis. However, a lack of knowledge about guidelines was identified. Importantly, these professionals are willing to participate in collective and advanced actions to improve quality-of-care in older people and to provide healthy ageing.

<https://doi.org/10.1016/j.sapharm.2025.02.055>

Pharmaceutical literacy in Spain and association with health-related quality of life: PILOT STUDY

Maria Sureda Rosich^{1,*}, Antonio J. Braza¹, Cecilia F. Lastra¹, Eduardo L. Mariño¹, Margarita Aguas Comparé¹, Pilar Modamio¹, Silvia López Alaiz²

¹ Clinical Pharmacy and Pharmaceutical Care Unit, Department of Pharmacy and Pharmaceutical Technology, and Physical Chemistry, Faculty of Pharmacy and Food Sciences, University of Barcelona, Spain; ² Treasury and Communication, Spanish Society of Clinical, Family and Community Pharmacy SEFAC, Spain

* Corresponding author:

E-mail address: mariasureda@ub.edu (M.S. Rosich).

Background: Pharmaceutical literacy has not been studied in Spain in a population level, and it could have a key influence on health-related quality of life on those who take medication. Pilot studies are very valuable to assess methods adequacy and to gain knowledge of the functioning of larger scale or greater complexity studies.

Purpose: To assess the results of a pilot study regarding pharmaceutical literacy levels of the Spanish population, and its influence on health-related quality of life.

Method/study design: A pilot study was performed in 10 community pharmacies from two different regions of Spain that had to recruit between 5-6 patients.

The community pharmacists were informed about the study through the "Spanish Society of Clinical, Family and Community Pharmacy (SEFAC)". After receiving their written informed consent, they were contacted by e-mail providing an online training before starting their participation.

The community pharmacists' performance included 1) an interview between them and the patient whose pharmaceutical literacy was being rated using the interview guide "RALPH-castellano" and 2) supplying the survey "EQ-5D-5L" that the patient had to auto-complete as a measurement of health-related quality of life.

The pilot results came from the opinion questionnaire community pharmacists answered after their participation, the register of incidents elaborated during the study and the answers from the patients' interviews.

Findings: Opinion questionnaire: 100% of the pharmacists stated that the training materials provided before their performance are adequate or very adequate, 100% considered that their participation is more than assumable, the time per patient varied between 5-20 minutes, and 87.5% of the pharmacists would very likely recommend to a college participating in the study.

Register of incidents: the documents' signing generated confusion, and the time to complete the interviews and send the results was often longer than expected. Interview answers: The sample obtained between both regions was homogenous, the relationship between patients' health-related quality of life and pharmaceutical literacy had a value of $p=0.077$ (signification ≤ 0.05), considering that the sociodemographic variables collected didn't include economical aspects.

Conclusion: The pilot study development and the participation of community pharmacists were overall positive. The explanations in some organizational details should be more extensive and the data collecting period should be enlarged. Although the relationship between pharmaceutical literacy and health-related quality of life was not significant, it is expected that in a representative sample of patients the result will change. New socio-demographic variables of patients will also be added.

<https://doi.org/10.1016/j.sapharm.2025.02.056>

Assessment of the Automated Dose Dispensing Service provided by a Community Pharmacy to a Nursing Home.

Emma Rovira Corona^{1,*}, Marina Noguer Martorell², Antonio J. Braza¹, Cecilia F. Lastra¹, Eduardo L. Mariño¹, Pilar Modamio¹

¹ Clinical Pharmacy and Pharmaceutical Care Unit, Department of Pharmacy and Pharmaceutical Technology, and Physical Chemistry, Faculty of Pharmacy and Food Sciences, University of Barcelona, Spain; ² Pharmacy Marina Noguer, Palafrugell, Girona, Spain

* Corresponding author:

E-mail address: eroviracorona@gmail.com (E.R. Corona).

Background: The rising prevalence of chronic conditions in aging populations poses challenges in managing polypharmacy, particularly for institutionalized older adults who often face complex medication regimens. Automated Dose Dispensing (ADD) is an automated process, which allows one or more medications to be accurately dispensed into a container or pouch for a patient to take at a scheduled date and time. ADD service provided by community pharmacies improves adherence to treatments through structured and personalized medication management.

Purpose (Research Question): The primary aim of this study was to evaluate potential medication-related problems associated with medications dispensed by a community pharmacy to a nursing home through the ADD service. Furthermore, the study aimed to assess the medical and pharmaceutical interventions carried out during the study period.

Method/Study Design: A one-month observational, cross-sectional study was conducted in July 2023, focusing on a sample of 50 residents aged 60–100 years from a nursing home. Each participant received weekly ADD- prepared medications (individualized dosage pouch, labelled with patient's details, dosage, and administration schedule). Data on demographics, prescribed medication, medication-related problems and interventions were gathered within the selected sample.

Findings: Among the patients enrolled in the ADD service, the majority were women (72%), and the average age was 83.3 years old. The average number of medications per patient was 4, with the range of medications prescribed varying from 1 to 12. The most commonly prescribed medications were omeprazole (32%), acetylsalicylic acid (26%), quetiapine (26%), furosemide (22%), and trazodone (22%). The total number of medical interventions was 47, distributed as follows: 53.2% were medication discontinuations (e.g., cessation of antibiotic treatment), 40.0% were medication addition (e.g., starting antihypertensive medications to better manage blood pressure), and 6.4% were emergency prescriptions (e.g., adding pain medication during an acute pain episode).

Furthermore, pharmacists conducted a total of 69 interventions, including changes in the preparation of the weekly medication due to the discontinuation or addition of medications (44 out of 69), detection of expired medications on electronic prescriptions (11 out of 69), urgent requests for medications unavailable at the nursing home (11 out of 69), and detection of changes in emergency medical prescriptions, such as antibiotics or insulins (3 out of 69).